

IV. AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A filter for filtering solid particles from liquids a flowing liquid, especially for use in steam condensers and heat exchangers in thermal and nuclear power plants, said filter comprising a cylindrical housing (4) extending longitudinally along and about a central axis, a conically-shaped screen basket (2) located within said housing (4), a debris discharge pipe (1) extending longitudinally along and about the central axis within said housing (4) and operative for discharging accumulated and captured debris; a debris extractor arm (3) connected to and extending from the debris discharge pipe (1) and located at a predetermined distance above the screen so as to maintain an open gap between the bottom surface of the debris extractor arm and the screen basket (2), wherein said debris extractor arm (3) is rotatably driven over the entire length of the screen basket (2) and has a curvature towards the screen extending outwards at a predetermined radius with a respective vertical plane to create a low pressure between the debris extractor arm (3) and the screen (4)-basket (2) for complete extraction of debris and conveying to said debris discharge pipe (1),

wherein the liquid flows in a first longitudinal direction within the housing (4) such that unfiltered liquid flows towards the screen basket (2) in the first longitudinal direction and, after being filtered, filtered liquid flows away from the screen basket (2) in the first longitudinal direction while debris-laden liquid flows in a second longitudinal direction being opposite the first longitudinal direction and
wherein the conically-shaped screen basket (2) tapers in the first longitudinal direction.

2. (Previously Presented) The filter as claimed in claim 1, wherein the debris extractor arm (3) is provided with a drive for driving over the entire length of the screen.

3. (Original) The filter as claimed in claim 2, wherein the drive is a geared motor drive (5, 6).

4. (Canceled)

5. (Original) The filter as claimed in claim 1, wherein the end of debris extractor arm close to the screen is provided with a curvature to avoid contact with the screen.

6. (Original) The filter as claimed in claim 1, wherein said screen basket (4) has a conical shape.

7. (Currently Amended) A cooling system comprising an inlet (9) and an outlet (8) for cooling water, a debris filter comprising a housing (4), a screen basket (2) located within said housing (4), a debris discharge pipe (1) for discharging accumulated and captured debris, a debris extractor arm (3) with a curvature towards the screen extending outwards at a predetermined radius with respective vertical plane, the said debris arm (3) being rotatably driven over the entire length of the screen to create a low pressure between the debris extractor arm (3) and the screen (4) for complete extraction of debris and conveying to said debris discharge pipe (1), a debris outlet valve (10), a debris output pipe (11) and a condenser (12) for heat transfer,

wherein the debris filter includes a cylindrical housing (4) extending longitudinally along and about a central axis, a conically-shaped screen basket (2) located within said housing (4), a debris discharge pipe (1) extending longitudinally along and about the central axis within said housing (4) and operative for discharging accumulated and captured debris; a debris extractor arm (3) connected to and extending from the debris discharge pipe (1) and located at a predetermined distance above the screen so as to maintain an open gap between the bottom surface of the debris extractor arm and the screen basket (2), wherein said debris extractor arm (3) is rotatably driven over the entire length of the screen basket (2) and has a curvature towards the screen extending outwards at a predetermined radius with a respective vertical plane to create a low pressure

between the debris extractor arm (3) and the screen basket (2) for complete extraction of debris and conveying to said debris discharge pipe (1),
wherein the liquid flows in a first longitudinal direction within the housing (4) such that unfiltered liquid flows towards the screen basket (2) in the first longitudinal direction and, after being filtered, filtered liquid flows away from the screen basket (2) in the first longitudinal direction while debris-laden liquid flows in a second longitudinal direction being opposite the first longitudinal direction and
wherein the conically-shaped screen basket (2) tapers in the first longitudinal direction.

8. (New) The filter as claimed in claim 1, wherein the debris extractor arm (3) as viewed in elevation is configured as a pentagon shape having five consecutively adjoining edges.

9. (New) The filter as claimed in claim 8, wherein the debris extractor arm (3) forms a debris-laden liquid flow passage adjacent the screen basket (2) and is in fluid communication with the debris discharge pipe (1), the debris-laden liquid flowing between two non-consecutive, non-adjoining edges.

10. (New) The filter as claimed in claim 7, wherein the debris extractor arm (3) as viewed in elevation is configured as a pentagon shape having five consecutive adjoining edges.

11. (New) The filter as claimed in claim 10, wherein the debris extractor arm (3) forms a debris-laden liquid flow passage adjacent the screen basket (2) and is in fluid communication with the debris discharge pipe (1), the debris-laden liquid flowing between two non-consecutive, non-adjoining edges.